

What is claimed is:

1 1. A function module comprising:

2 a first circuit board including a first surface with
3 a first ground layer formed thereon;

4 a second circuit board, coupled to the first circuit
5 board, including a second surface facing the
6 first surface, wherein a second ground layer is
7 formed on the second surface; and

8 a heat dissipation fin, disposed between the first
9 circuit board and the second circuit board,
10 abutting the first ground layer and the second
11 ground layer respectively.

1 2. The function module as claimed in claim 1,
2 wherein the first circuit board further includes a third
3 surface, opposite to the first surface, with a first
4 device located thereon.

1 3. The function module as claimed in claim 1,
2 wherein the second circuit board further includes a
3 fourth surface, opposite to the second surface, with a
4 second device located thereon.

1 4. The function module as claimed in claim 1,
2 wherein both the first ground layer and the second ground
3 layer are made of copper.

1 5. The function module as claimed in claim 1,
2 wherein both the thickness of the first ground layer and
3 the thickness of the second ground layer are
4 substantially not less than 1.5 mil.

1 6. The function module as claimed in claim 1,
2 further comprising a flat cable connecting the first
3 circuit board and the second circuit board, providing
4 communicability therebetween.

1 7. The function module as claimed in claim 1,
2 further comprising a connector connecting the first
3 circuit board and the second circuit board, providing
4 communicability therebetween.

1 8. The function module as claimed in claim 7,
2 wherein the connector is a slot connector.

1 9. The function module as claimed in claim 1,
2 further comprising:

3 a first heat spreader, disposed between the heat
4 dissipation fin and the first ground layer, for
5 uniformly spreading the heat over the first
6 circuit board; and

7 a second heat spreader, disposed between the heat
8 dissipation fin and the second ground layer,
9 for uniformly spreading the heat over the
10 second circuit board.

1 10. The function module as claimed in claim 9,
2 wherein both the first heat spreader and the second heat
3 spreader are made of copper, aluminum, metallic composite
4 material, or non-metallic composite material.

1 11. The function module as claimed in claim 9,
2 wherein both the thermal conductivity of the first heat

3 spreader and the thermal conductivity of the second heat
4 spreader are not substantially, less than 100W/m• K.

1 12. The function module as claimed in claim 1,
2 further comprising:

3 a first adhesion layer, disposed between the heat
4 dissipation fin and the first ground layer, for
5 combining the heat dissipation fin with the
6 first circuit board; and

7 a second adhesion layer, disposed between the heat
8 dissipation fin and the second ground layer,
9 for combining the heat dissipation fin with the
10 second circuit board.

1 13. The function module as claimed in claim 12,
2 wherein both the first adhesion layer and the second
3 adhesion layer comprise one selected from the group
4 consisting of brazing solder, tin solder, thermal
5 interface material, grease and the combination thereof
6 respectively.

1 14. The function module as claimed in claim 1,
2 further comprising a fan, connected to the heat
3 dissipation fin, for dissipating heat therefrom.

1 15. A function module comprising:

2 a first circuit board including a first surface with

3 a first heat conduction layer formed thereon;

4 a second circuit board, coupled to the first circuit
5 board, including a second surface facing the
6 first surface, wherein a second heat conduction
7 layer is formed on the second surface; and

8 a heat dissipation fin disposed between the first
9 circuit board and the second circuit board,
10 abutting the first heat conduction layer and
11 the second heat conduction layer respectively.

1 16. The function module as claimed in claim 15,
2 wherein the first heat conduction layer is a ground layer
3 of the first circuit board, and the second heat
4 conduction layer is a ground layer of the second circuit
5 board.

1 17. The function module as claimed in claim 15,
2 wherein the first circuit board further includes a third
3 surface, opposite to the first surface, with a first
4 device located thereon.

1 18. The function module as claimed in claim 15,
2 wherein the second circuit board further includes a
3 fourth surface, opposite to the second surface, with a
4 second device located thereon.

1 19. The function module as claimed in claim 15,
2 wherein both the first heat conduction layer and the heat
3 conduction layer are made of copper.

1 20. The function module as claimed in claim 15,
2 wherein both the thickness of the first heat conduction
3 layer and the thickness of the second heat conduction
4 layer are not substantially less than 1.5 mil.

1 21. The function module as claimed in claim 15,
2 further comprising a flat cable connecting the first

3 circuit board and the second circuit board, providing
4 communicability therebetween.

1 22. The function module as claimed in claim 15,
2 further comprising a connector connecting the first
3 circuit board and the second circuit board, providing
4 communicability therebetween.

1 23. The function module as claimed in claim 22,
2 wherein the connector is a slot connector.

1 24. The function module as claimed in claim 15,
2 further comprising:

3 a first heat spreader, disposed between the heat
4 dissipation fin and the first heat conduction
5 layer, for uniformly spreading the heat over
6 the first circuit board; and

7 a second heat spreader, disposed between the heat
8 dissipation fin and the second heat conduction
9 layer, for uniformly spreading the heat over
10 the second circuit board.

1 25. The function module as claimed in claim 24,
2 wherein both the first heat spreader and the second heat
3 spreader are made of copper, aluminum, metallic composite
4 material, or non-metallic composite material.

1 26. The function module as claimed in claim 15,
2 wherein both the thermal conductivity of the first heat
3 spreader and the thermal conductivity of the second heat
4 spreader are substantially not less than $100\text{W/m}\cdot\text{K}$.

1 27. The function module as claimed in claim 15,
2 further comprising:

3 a first adhesion layer, disposed between the heat
4 dissipation fin and the first heat conduction
5 layer, for combining the heat dissipation fin
6 with the first circuit board; and

7 a second adhesion layer, disposed between the heat
8 dissipation fin and the second heat conduction
9 layer, for combining the heat dissipation fin
10 with the second circuit board.

1 28. The function module as claimed in claim 27,
2 wherein both the first adhesion layer and the second
3 adhesion layer comprise one selected from the group
4 consisting of brazing solder, tin solder, thermal
5 interface material, grease and the combination thereof
6 respectively.

1 29. The function module as claimed in claim 15,
2 further comprising a fan, connected to the heat
3 dissipation fin, for dissipating heat therefrom.

1 30. The function module as claimed in claim 15,
2 wherein the first heat conduction layer is a power source
3 surface of the first circuit board, and the second heat
4 conduction layer is a power source surface of the second
5 circuit board.